

CUAN BEO JANUARY 2022 NEWSLETTER



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Economic Assessment of Catchment 29



Ruairi o Conor (LAWPRO), Diarmuid Kelly (Chairman (CB), Gerry O' Hallaran (Treasures CB) and Colm O' Dowd (Secretary CB).

On Friday the 19th of November 2021 Cuan Beo at Rinville Golf Club Cuan Beo launched 'An Economic Assessment of the Marine Resources of South- East Galway Bay Catchment 29' prepared by Colm O' Dowd and funded by LAWPRO and under the BIM FLAG programme.

The report notes the value of the marine related industries in Catchment 29 which generates revenue of **€105m** and supports approximately **550** jobs. The report also set out the value of ecosystem services in South East Galway Bay and it placed a monetary value on the coastal environment and it's contribution to the human health and wellbeing of the region.

We are delighted that the report has been received with positive enthusiasm by policy makers, state officials and community

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members who share a collective ambition to protect and develop the marine resources of Catchment 29 for the prosperity and enjoyment of everyone.

'Harnessing the might of the wild Atlantic Ocean could not alone turn the west coast into an economic powerhouse; it might just play a small part in saving the planet in the process...That's why this report from Cuan Beo is both visionary and hugely exciting because we are standing at the precipice of a bright new dawn, if we just get the infrastructure in place to make the most of it...The timing of this report, coming just weeks after COP26, is either orchestrated or extraordinary, but it doesn't matter which. What we know is that the world must change if we're to save it and we may as well capitalise on that evolution by making the most of natural resources on our own doorstep. The future may be very blue or green but, if we play our part, we might find ourselves firmly in the black.' **Francis Farragher, Connacht Tribune, commenting**



Cruinniú na mBád traditional boat regatta in Galway Bay.

Email: alec@cuanbeo.com

Source to Sea Education Programme



The Cuan Beo *Source to Sea* education programme was delivered to 27 TY students from Seamounts College Kinvara in Autumn 2021. The Programme is designed to allow young people to participate in their local water bodies by facilitating practical field trips to fresh water and marine water bodies, conducting on site meetings with local aquaculture farmers, and through marine recreational activities that allow them to experience their water bodies.

The programme was funded by Galway Rural Development and under the LEADER programme.

Source to Sea Education Programme

EDUCATION

Through out the programme the participants are educated on how our oceans work, how fresh water travels from sky to sea, how sustainable seafood is produced, how climate change and water pollution are changing our oceans and how we can work to correct these environmental pressures.



SUSTAINABILITY

The core ethos of the SEA programme is to introduce our youth to our ocean resources to inspire an awareness around the sustainable management of these resources. We meet with sustainable seafood producers operating in catchment 29 Galway Bay and discuss how sustainable fishing and aquaculture production can be achieved.

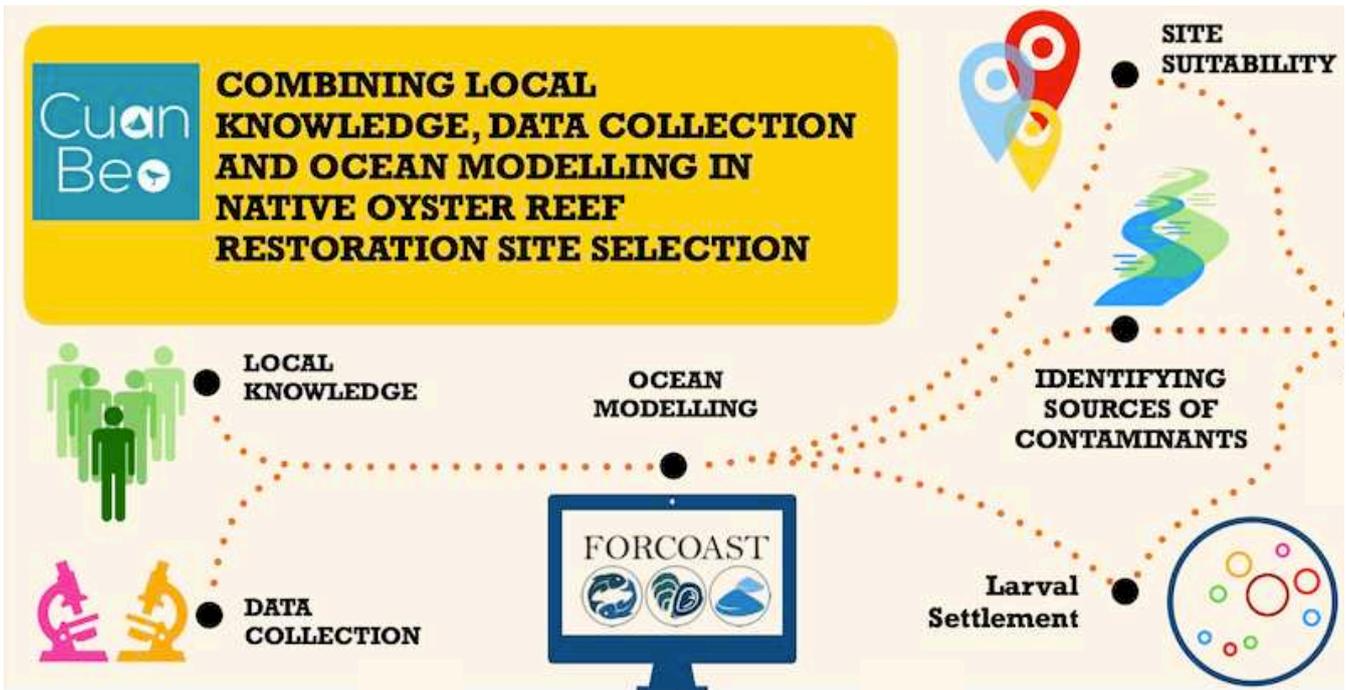


ADVENTURE

Education through adventure is fun for all involved and this is the philosophy we adopt in our marine education. We do this by educating in the environment and by kayaking, paddle boarding, or shore walking to the area of the marine environment we are going to investigate.



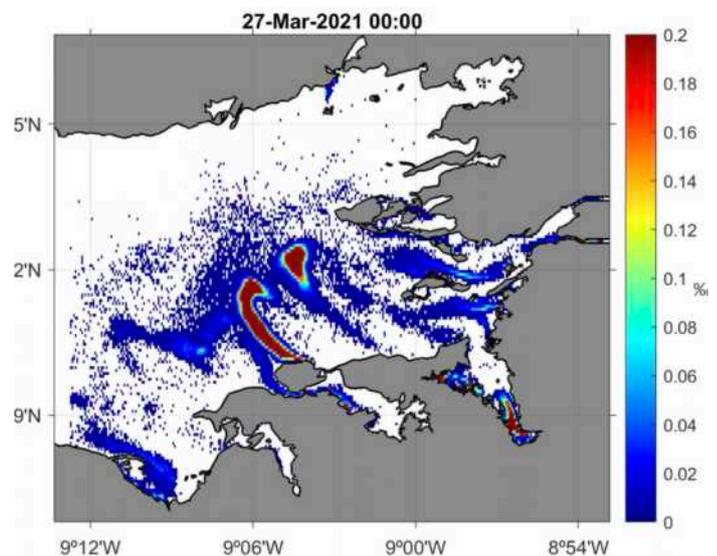
Forcoast Ocean Model Development



Above is a diagram showing how we can input our local knowledge and marine data collection into the FORCOAST ocean modelling system and use the system in our oyster reef restoration work to determine (a) Site Suitability for Reef Restoration, (b) Identifying Sources of Contaminants and (c) Larval Settlement.

Identifying Sources of Contaminants

Ocean modelling aims to identify the site-specific issues that constrain native oyster reef restoration in Galway Bay. The 'Contamination Source Retrieval' service module allows us to simulate how particles disburse from various discharge points in Galway Bay and identify the most significant areas of particle concentration. We can then determine whether these discharges present a risk to oyster health. This service therefore allows us to identify the best locations for native oyster reef restoration by revealing the areas least impacted by pollution or freshwater discharges.



The 'Contamination Source Retrieval' service module showing particle distribution from a fresh water discharge point (Clarin River). The darker areas show the highest concentration of particles.



Oyster Cultch Survey 2021



Emma White (Marine Institute), PJ Martin (Skipper) and Dr. Oliver Tully (Marine Institute) conducting the cultch sampling in Galway Bay.

In June 2021 we deployed **300 tonnes** of clean scallop and welk cultch for the purpose of oyster reef restoration in Galway Bay.

Based on oyster gonad monitoring conducted in 2020 we determined that the peak time for native oyster larvae disbursement in Galway Bay was from the period of June to August if salinity and temperature conditions remain optimal.

This research was invaluable in determining the best time to deploy our cultch in 2021 as we needed to ensure that the cultch had enough time to settle on the seabed and also that we didn't deploy it too early so that it gets covered in sediment or other marine life and becomes unsuitable for oyster settlement.

In October 2021 we collected samples of the cultch deployed to investigate whether any native oyster settlement had occurred.



Cultch Surveying



Cultch surveying involves dropping a 'grab sampler' which scoops up the substrate from the seafloor which is then examined and the different types of substrate identified are categorised. Each time the grab is dropped the substrate identified is recorded and the GPS location from where it was collected is noted. Anytime we collect a good sample of cultch it is bagged and will be taken back to the Marine Institute to be examined under a microscope to determine if any oyster settlement has occurred.



Cuan Beo New Years Address - Why Oysters?



A solitary native oyster hanging on in Galway Bay.

The world has changed dramatically and for many detrimentally in the last 2 years with tremendously little left in it to inspire hope.

A global super virus that remains prevalent havocs the present, and our incipient doom owing to a climate crisis of our own creation ensures that the future will be full of even worse discouragement and dread.

Against this perpetual gloom one inevitably questions their own purpose? Is there any point to carry on doing the work I am doing? In the grander scheme of things will it achieve anything? And for me personally, as an oyster reef restoration officer, this means is there any point to continue my efforts in oyster reef restoration?

Oysters are a notoriously difficult animal to restore. They are extremely sensitive to environmental changes and their environment has changed so fundamentally in Galway Bay that any meaningful reef restoration is conceivably impossible without major habitat recovery work.

At times you find yourself holding on to a

fantasy, reading the old accounts of the abundance of oysters that used to exist in older days and wonder at the vastness of these marvellously reefs, but then walk the shore in discernible despair when you see that these populations are long gone. However, if you're lucky, this is precisely when the sea will grant you what feels like a miracle, and will look down at just the right moment and find an oyster and you will feel the excitement rise in you.

Because you have invested so much of yourself in the struggle of this animal, you understand the rarity it is to find it and this wonderful uprising happens in you where you feel genuine inspiration for this tremendously little oyster, simply hanging on. Any anxiety or turmoil you have vanishes completely in this instance of discovery. The whole world stops and instead you exist in that signal moment with the oyster. You are manifestly different to this animal, how each of you interact with the world and how the world interacts with you totally alien to each other, but the personal connection you feel to it is overwhelming, as if you are both engage against the same struggle and are allied against it together. The more times you discover the animal the more it becomes like greeting an old friend, one you have been missing desperately and to find it in good health is incredible comforting.

This voiceless, speechless, word-less oyster awakens such powerful emotion in you that it's value has moved beyond an animal for restoration - it provides you with assurance of not just your restoration work but also of yourself. In a time of such perceivably insurmountable gloom - the oyster inspires in me genuine hope.

This is the magic I have found in oysters, this is the excitement nature can inspire and this is the beauty which remains in the world even in these dark days, that one man can derive such joy from something so simple as an oyster.

Happy New Year,
Alec Reid,
Oyster Reef Restoration Officer
Cuan Beo